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(54) Title: METHOD OF FORMING FREESTANDING THIN CHROMIUM COMPONENTS FOR AN ELECTROCHEMICAL CONVERTER

(57) Abstract: A method of fabricating a high density thin component which can be used in an electrochemical converter comprises tape casting a material to form a tape followed by hot pressing of the tape to provide additional densification of the material. A plurality of tapes may be laminated together prior to hot pressing to provide a thicker structure or a composite structure. The materials used to produce the component may include silicon carbide, SiC, high chromium alloys, chromium iron alloys, (Cr-5wt%Fe-1wt%Y₂O₃) and chromium magnesium alloys (Cr-5wt%Ni-1wt%MgO). The fabrication method produces a high density component, including the application in an electrochemical converter, having a thickness of less than about 0.03 inches.

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